

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOACHIM PAKUSCH,
JOACHIM ROSER, MAXIMILLIAN ANGEL
and ANDREE DRAGON

Appeal No. 2000-1832
Application 08/868,736

HEARD: October 8, 2002

Before WARREN, LIEBERMAN and KRATZ, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

Decision on Appeal

This is an appeal under 35 U.S.C. § 134 from the decision of the examiner refusing to allow claims 32 through 54 and 56 through 59, 61 and 62 as amended and claim 63 as added subsequent to the final rejection. Appellants cancelled claims 55 and 60 subsequent to the final rejection. Claims 32 and 33 are illustrative of the claims on appeal:

32. A process for preparing an addition-polymer powder suitable for modifying a binding mineral building material by drying an aqueous addition-polymer dispersion whose film has a glass transition temperature $T_g \leq 30^\circ\text{C}$ and to which a drying assistant has been added, which comprises adding to the aqueous addition-polymer dispersion before drying only a drying assistant which has plasticizing effect in the ready-to-use mix of the binding mineral building material with water and admixing the resulting dry addition-polymer powder with at least one

assistant which has a deplasticizing effect in the ready-to-use mix of the binding mineral building material with water and which assistant is in the form of a finely divided solid.

33. A process for preparing an addition-polymer powder suitable for modifying a binding mineral building material by drying an aqueous addition-polymer dispersion whose film has a glass transition temperature $T_g \leq 30^\circ\text{C}$ and to which a drying assistant has been added, which comprises adding to the aqueous addition-polymer dispersion before drying only a drying assistant which has a deplasticizing effect in the ready-to-use mix of the binding mineral building material with water and admixing the resulting dry addition-polymer powder with at least one assistant which has a plasticizing effect in the ready-to-use mix of the binding mineral building material with water and which assistant is in the form of a finely divided solid.

The appealed claims, as represented by claims 32 and 33, are drawn to a process for preparing an addition-polymer powder which comprises at least the steps of adding a drying assistant to an aqueous dispersion of a specified addition-polymer, drying the dispersion to obtain an addition-polymer powder, and then adding a second assistant to that addition-polymer powder to obtain the specified product. In claim 32, the drying assistant has a *plasticizing* effect in the ready-to-use mix of the binding mineral building material with water, and the second assistant has a *deplasticizing* effect in the ready-to-use mix of the binding mineral building material with water. In claim 33, the drying assistant has a *deplasticizing* effect in the ready-to-use mix of the binding mineral building material with water, and the second assistant has a *plasticizing* effect in the ready-to-use mix of the binding mineral building material with water. Appealed claim 59 encompasses “[a]n addition-polymer powder obtained by the process as claims in Claim 32 or 33,” and appealed claims 61 through 63 encompasses binding mineral building materials comprising the product of claim 59 and methods of preparing such materials. According to appellants, the redispersible addition-polymer powder compositions obtained by the claimed methods make it possible to provide any desired yield value, that is, the “shear stress above which a material behaves like a fluid, ie. flows, but below which it behaves like a solid, ie. does not flow,” to ready-to-use mixes with water, wherein “the plasticizing or deplasticizing effect of the assistant *added* [to the addition-polymer powder] . . . *after the drying has ended* is more pronounced than if added prior to the drying” (specification, e.g., pages 5-6 and 15).

The references relied on by the examiner are:

Schulze et al. (Schulze)	5,118,751	Jun. 2, 1992
Nishioka et al. (Nishioka)	5,192,366	Mar. 9, 1993
Penzel et al. (Penzel)	5,462,978	Oct. 31, 1995
Pak-Harvey et al. (Pak-Harvey)	5,519,084	May 21, 1996

The examiner has advanced the following grounds of rejection on appeal:

claim 43 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention (answer, page 3);

claims 32, 34, 36, 38, 39, 44 through 49, 51 through 54, 56 through 59 and 61 through 63 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Penzel (answer, page 4);

claims 33, 35, 37, 38, 40 through 48, 50 through 54, 56 through 59 and 61 through 63 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Schulze (answer, page 5);

claims 33, 35, 37, 38, 40 through 48, 50 through 54, 56 through 59 and 61 through 63 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Pak-Harvey optionally in view of Nishioka (answer, pages 5-6).

Appellants state in their brief that “[e]ach of the claims will be considered separately and will stand or fall to the other” but do not argue any appealed claims other than claims 32, 33 and 43 with specificity (pages 4 and 9 through 14). Thus, we decide this appeal based on appealed claims 32, 33 and 43. 37 CFR § 1.192(c)(7) (1999r).

We affirm the grounds of rejection of appealed claim 43 under § 112, second paragraph, and of appealed claims 33, 35, 37, 38, 40 through 48, 50 through 54, 56 through 59 and 61 through 63 under § 103(a) as being obvious over Schulze, and reverse all other grounds of rejection.

Rather than reiterate the respective positions advanced by the examiner and appellants, we refer to the examiner’s answer and to appellants’ brief and reply brief for a complete exposition thereof.

Opinion

In order to compare the claimed invention encompassed by appealed claims 32 and 33 with the applied prior art, and to consider the ground of rejection of appealed claim 43, we must first interpret the terms of claims 32 and 33 in light of the written description in the specification as interpreted by one of ordinary skill in this art. *See, e.g., In re Hyatt*, 211 F.3d 1367, 1372, 54

USPQ2d 1664, 1667 (Fed. Cir. 2000); *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997), *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). On this record, we determine that the “an addition-polymer powder” prepared by the processes of appealed claims 32 and 33 and encompassed by appealed claim 59, is a product separate and apart from “a binding mineral building material.” *See generally, In re Fritch*, 972 F.2d 1260, 1262, 23 USPQ2d 1780, 1781 (Fed. Cir. 1992) (citing *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 896, 221 USPQ 669, 675 (Fed. Cir.), cert. denied, 469 U.S. 857 [225 USPQ 792] (1984), *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989), *In re Stencel*, 828 F.2d 751, 754-55, 4 USPQ2d 1071, 1073 (Fed. Cir. 1987). Each of appealed claims 32 and 33 plainly specify in the preamble thereof “[a] process for preparing an addition-polymer powder” which is “suitable for modifying a binding mineral building product,” and further specify in the body thereof the step of drying an aqueous dispersion of the addition-polymer and one assistant to obtain a dried intermediate powder product, followed immediately by the step of adding a second assistant to the intermediate powder product in order to form the final addition-polymer powder product. Thus, it is clear from the preamble and the body of these claims that the claimed processes comprise at least the two steps of forming *an addition-polymer powder* that contains the two specified assistants. Indeed, we find that one of ordinary skill in this art would find it clear from the written description in the specification that “an addition-polymer powder” is a separate product which, *after formulation*, is used for “modifying a binding mineral building materials, and particularly since it is apparent from each of Penzel (e.g., col. 1, lines 31-36; col. 3, lines 32-38; col. 12, lines 7-47; and col. 13, lines 4-6), Schulze (e.g., col. 1, lines 37-38; col. 2, lines 5-19; col. 3, lines 5-14 and 21-38; Examples 1-3 and col. 6, lines 15-17) and Pak-Harvey (e.g., col. 1, lines 29-50; col. 2, lines 3-23; col. 3, lines 36-48; Examples 1 and 3, and col. 5, lines 17-19), that this person would have the knowledge that a redispersible addition-polymer powder is separately prepared before the addition thereof to such materials.

We further determine that the transitional term “comprising” opens the claimed methods encompassed by appealed claims 32 and 33 to include additional steps that add other ingredients to the specified addition-polymer powder product *after* its preparation, which could include the

steps of adding the specified “addition-polymer powder” product to ingredients commonly found in “a binding mineral building materials.” *See Exxon Chemical Patents Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1555, 35 USPQ2d 1801, 1802 (Fed. Cir. 1995) (“The claimed composition is defined as comprising - meaning containing at least - five specific ingredients.”); *In re Baxter*, 656 F.2d 679, 686-87, 210 USPQ 795, 802-03 (CCPA 1981) (“As long as one of the monomers in the reaction is propylene, any other monomer may be present, because the term ‘comprises’ permits the *inclusion* of other steps, elements, or materials.”).

In comparing appealed claims 32 and 33 to the disclosures of each of Penzel, Schulze and Pak-Harvey in light of the positions advanced by appellants and the examiner with respect to the grounds of § 102(b), we find that the examiner has not carried the burden of establishing a *prima facie* case of anticipation in the first instance by pointing out where each and every element of the claimed process encompassed by each of appealed claims 32 and 33, arranged as required by the claim, is described identically in each reference, respectively, either expressly or under the principles of inherency. *See generally, In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986); *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). Indeed, as appellants point out, the claimed processes as encompassed by the appealed claims require the sequence of steps with respect to the addition of the first and second assistants to form an addition-polymer powder prior to the additional of any other ingredient of a binding mineral building material, and the examiner has not established that the second assistant is added to the redispersible addition-polymer powder before any other ingredient. Thus, contrary to the position taken by the examiner, in this instance the order of mixing the ingredients of a binding mineral building material, including the combining of ingredients of the redispersible addition-polymer powder composition, does matter. Accordingly, we reverse each of the grounds of rejection under § 102(b).

With respect to the grounds of rejection under § 103(a) over Penzel and Pak-Harvey, respectively, which is based on the same evidence in these references, we find that the examiner has not carried the burden of establishing a *prima facie* case of obviousness by showing that some objective teaching, suggestion or motivation in the applied prior art taken as a whole and/or knowledge generally available to one of ordinary skill in this art would have led that person to

the claimed invention as a whole, including each and every limitation of the claims, without recourse to the teachings in appellants' disclosure. *See generally, In re Fine*, 837 F.2d 1071, 1074-76, 5 USPQ2d 1596, 1598-1600 (Fed. Cir. 1988); *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531-32 (Fed. Cir. 1988). Indeed, the examiner has not established that one of ordinary skill in this art following the teachings of Penzel or Pak-Harvey would have prepared the redispersible addition-polymer powder by the claimed process encompassed by appealed claims 32 and 33, or would have prepared the product obtained by the claimed process encompassed by appealed claims 32 and 33 as claimed in appealed claim 59 by a different process. *See generally, In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985); *In re Wertheim*, 541 F.2d 257, 271, 191 USPQ 90, 103-04 (CCPA 1976) ("These claims are cast in product-by-process form. Although appellants argue, successfully we have found, that the [reference] disclosure does not suggest . . . appellants' process, the patentability of the products defined by the claims, rather than the processes for making them, is what we must gauge in light of the prior art."). Accordingly, we reverse the grounds of rejection under § 103(a) over Penzel and Pak-Harvey.

We now arrive at the ground of rejection of claim 33 under § 103(a) over Schulze. Appellants point out that "[t]he polymer powder of this reference contains in addition to a base polymer . . . polyvinylalcohol which has deplasticizing properties" and "[a]s an option . . . [contains] cement-plasticizing agents" which are "added before the spray drying process" as seen from Schulze Example 2 (brief, pages 6-7). Appellants contend that the "negative effect . . . on the content of coagulum and the flow-behavior of the ready to use mortar mixtures" of adding both the *deplasticizing* and *plasticizing* assistants to the aqueous addition-polymer dispersion before drying is shown in the specification by a comparison of compositions "P3 and P4," in which all ingredients are present in the aqueous dispersion as in Schulze Example 2, with compositions "P2 and P3," in which it appears that a *plasticizing* assistant is added to the aqueous dispersion and a *deplasticizing* agent is added to the dried intermediate powder.¹ We

¹ We observe that the repeated amending of specification page 20, line 44, has resulted in the lines 43-44 reading "P2: As P1, but on completion of the spray drying 3% by weight, based on T2, of drying assistant T2 in a finely divided solid." However, it is clear that "P1" is an addition-

note here that in appealed claim 33, a *deplasticizing* assistant is added to the aqueous dispersion and a *plasticizing* agent is added to the dried intermediate powder.

We agree with appellants that the redispersible addition-polymer powder prepared in Schulze Example 2 contains both a *deplasticizing* assistant and a *plasticizing* assistant. However, we find that one of ordinary skill in the art would not have found in the disclosure in col. 3, lines 5-14 and 21-38, of Schulze a specific teaching or inference that the *plasticizing* agent must be added to the aqueous addition-polymer powder dispersion in order to incorporate the same into the addition-polymer powder.² Instead, we find that one of ordinary skill in this art would have inferred from the reference that the plasticizing assistant can be added after the dispersion has been dried from the teaching in Schulze that “cement-plasticizing agents are *preferably* added to the mixture present as a dispersion before drying” (col. 3, lines 36-38; emphasis supplied). Accordingly, we find that one of ordinary skill in this art routinely following the teachings of Schulze would have arrived at the claimed method encompassed by appealed claim 33 without recourse to appellants’ specification. *See generally, In re Lamberti*, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976) (“The fact that neither of the references expressly discloses asymmetrical dialkyl moieties is not controlling; the question under 35 USC 103 is not merely what the references expressly teach, but what they would have suggested to one of ordinary skill in the art at the time the claimed invention was made.”).

Accordingly, since a *prima facie* case of obviousness of the claimed method encompassed by appealed claim 33 has been established over Schulze, we have again evaluated all of the evidence of obviousness and nonobviousness based on the record as a whole, giving due consideration to the weight of appellants’ arguments and the evidence in the specification. *See generally, In re Johnson*, 747 F.2d 1456, 1460, 223 USPQ 1260, 1263 (Fed. Cir. 1984); *In re*

polymer powder containing *plasticizing* assistant “T1,” used to form “P2” by the addition of *deplasticizing* assistant “T2” is added.

² It is well settled that a reference stands for all of the specific teachings thereof as well as the inferences one of ordinary skill in this art would have reasonably been expected to draw therefrom, *see generally, In re Fritch*, 972 F.2d 1260, 1264-65, 23 USPQ2d 1780, 1782-83 (Fed. Cir. 1992); presuming skill on the part of this person. *In re Sovish*, 769 F.2d 738, 743, 226 USPQ 771, 774 (Fed. Cir. 1985).

Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); *In re Rinehart*, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

Appellants' traverse of this ground of rejection is based solely on the evidence in the comparisons set forth in the specification as relied in the brief (page 7). On this record, it is apparent from the reported results (specification Tables 1 and 2) that compositions "P2 and P3," representing the invention disclosed in the specification, perform better than compositions "P3 and P4," stated to represent the prior art, although the significance of such results is not established on the record. *See generally, In re Geisler*, 116 F.3d 1465, 1470, 43 USPQ2d 1362, 1365 (Fed. Cir. 1997); *In re Merck & Co.*, 800 F.2d 1091, 1099, 231 USPQ 375, 381 (Fed. Cir. 1986); *In re Longi*, 759 F.2d 887, 897, 225 USPQ 645, 651-52 (Fed. Cir. 1985); *In re Klosak*, 455 F.2d 1077, 1080, 173 USPQ 14, 16 (CCPA 1972); *In re D'Ancicco*, 439 F.2d 1244, 1248, 169 USPQ 303, 306 (CCPA 1971).

However, even if the significance of the results were established, we find that such evidence does not directly or, on this record, indirectly represent the claimed process encompassed by appealed claim 33 in which the *deplasticizing* agent is added to the aqueous addition-polymer dispersion prior to drying, and the *plasticizing* agent is added to the intermediate powder product. In other words, the order of adding the deplasticizing and plasticizing assistants in compositions "P2 and P3" is opposite to that specified in appealed claim 33, and thus instead reflects the order in appealed claim 32, which is not rejected over Schulze, and appellants have not established that such evidence indirectly pertains to appealed claim 33. *Cf. In re Blondel*, 499 F.2d 1311, 1317, 182 USPQ 294, 297-98 (CCPA 1974) ("Appellants' brief goes through a detailed, step-by-step analysis of the evidence in support of the conclusion to be drawn from the indirect comparison . . . , " establishing that the indirect evidence provided a reliable indication of the performance of the closest claimed and prior art compounds).

Even if it can be said that the evidence based on the comparisons pertains to the claimed process encompassed by appealed claim 33, we find that the evidence is not based on the closest prior art, which is the plasticizing and deplasticizing assistants specifically set forth in Schulze. *See generally, Baxter Travenol Labs, supra* ("[W]hen unexpected results are used as evidence of nonobviousness, the results must be shown to be unexpected compared to the closest prior art.

[Citation omitted.]”); *In re Burckel*, 592 F.2d 1175, 1179, 201 USPQ 67, 71 (CCPA 1979) (the claimed subject matter must be compared with the closest prior art in a manner which addresses the thrust of the rejection); *In re Blondel*, 499 F.2d at 1317, 182 USPQ at 298 (the indirect evidence provided a reliable indication of the performance of the closest claimed and prior art compounds).

Accordingly, based on our consideration of the totality of the record before us, we have weighed the evidence of obviousness found in Schulze with appellants’ countervailing evidence of and argument for nonobviousness and conclude that the claimed invention encompassed by appealed claims 33, 35, 37, 38, 40 through 48, 50 through 54, 56 through 59 and 61 through 63 would have been obvious as a matter of law under 35 U.S.C. § 103(a).

Turning now to the ground of rejection of appealed claim 43 under § 112, second paragraph, we find it clear from the plain language of appealed claim 43, as interpreted in light of the written description in the specification, *see, e.g., Morris, supra*, that, as pointed out by the examiner (answer, page 3), hydrolyzed polyvinylacetate, a *deplasticizing* assistant, “is mixed into the dried addition-polymer powder,” which is a step of the claimed process encompassed by appealed claim 32 but not of the claimed process encompassed by appealed claim 33. Thus, we agree with the examiner’s conclusion that claim 43 is improperly in the lineage of appealed claim 33 (*id.*), and, accordingly, affirm this ground of rejection.

In summary, we affirm the grounds of rejection of appealed claim 43 under 35 U.S.C. § 112, second paragraph, and of appealed claims 33, 35, 37, 38, 40 through 48, 50 through 54, 56 through 59 and 61 through 63 under 35 U.S.C. § 103(a) as being obvious over Schulze, and reverse all other grounds of rejection.

The examiner’s decision is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

CHARLES F. WARREN
Administrative Patent Judge

PAUL LIEBERMAN
Administrative Patent Judge

PETER F. KRATZ
Administrative Patent Judge

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